CLAIMS:

1. A method of reducing the diameter of a medical device in cross-section, the method comprising the steps of:

1) providing an apparatus for applying an inward force to said medical device, the apparatus comprising a plurality of movable blades arranged to form an aperture whose size may be varied, wherein at least two blades overlap one another in a direction parallel to a central longitudinal axis of the aperture;

2) disposing a medical device within the aperture; and

3) reducing the size of the aperture to apply an inward force to said medical device, thereby reducing the diameter of the medical device.

2. The method of claim 1, wherein the medical device is a stent.

3. The method of claim 1, wherein the apparatus further comprises a mount and a collar; each blade being pivotally attached to the mount and slidably engaged with the collar.

4. The method of claim 3, wherein the size of the aperture is reduced by rotating the collar with respect to the mount.

5. The method of claim 4, wherein the collar may be rotated with respect to the mount by a drive device.

6. The method of claim 5 wherein the drive device comprises a lead screw, a ball screw, a solenoid, a movable rack actuator, a stepper motor or combination thereof.

7. The method of claim 1, the apparatus further comprising a second plurality of movable blades arranged to form a second aperture whose size may be varied, the method further comprising reducing the size of the second aperture to apply an inward force to said medical device, thereby reducing the diameter of the medical device.

8. The method of claim 7, the medical device comprising a stent, the stent comprising at least one serpentine band having a length component in a direction parallel to a longitudinal axis of the stent, wherein the distance between the aperture and the second aperture is less than the length component of the serpentine band.

9. The method of claim 8, wherein the plurality of blades and the second plurality of blades are arranged to contact the same serpentine band.

10. The method of claim 1, wherein each blade comprises a contacting surface that may contact the medical device, the contacting surface of at least one blade being curved.

11. The method of claim 1, wherein the blades have a thickness of about 0.025 mm to about 0.075 mm in a direction parallel to the central longitudinal axis of the aperture.

12. The method of claim 1, wherein the blades have a thickness of about 0.01 mm to about 2 mm in a direction parallel to the central longitudinal axis of the aperture.

13. An apparatus for applying an inward force to a medical device, said apparatus comprising a plurality of coupled movable blades arranged to form an aperture whose size may be varied, the aperture having a central longitudinal axis, each blade having a thickness dimension in a direction parallel to the central longitudinal axis of the aperture, wherein the thickness dimension of each blade is 2 mm or less.

14. The apparatus of claim 13, wherein each blade further comprises a contacting surface for contacting a medical device placed within the aperture, wherein the contacting surface of each blade is curved.

15. The apparatus of claim 13, wherein the thickness dimension of each blade is 1 mm or less.

16. The apparatus of claim 13, each blade having a thickness dimension of about 0.025 mm to about 0.075 mm.

17. The apparatus of claim 13, wherein each blade is arranged to pivot about a pivot point.

18. The apparatus of claim 13 comprising 6 to 10 blades.

19. An apparatus for applying an inward force to a medical device, the apparatus comprising a plurality of coupled movable blades arranged to form an aperture whose size may be varied, wherein at least two blades overlap one another in a direction parallel to a central longitudinal axis of the aperture.

20. The apparatus of claim 19, wherein each blade may overlap a portion of a first adjacent blade and each blade may be overlapped by a portion of a second adjacent blade in a direction parallel to the central longitudinal axis of the aperture.

21. The apparatus of claim 19, wherein each blade further comprises a contacting surface for contacting a medical device placed within the aperture, wherein the contacting surface of each blade is curved.

22. The apparatus of claim 19, wherein each blade is pivotally connected to a mount and slidably engaged with a rotatable coller.

23. The apparatus of claim 22, wherein the size of the aperture is controlled by the rotational orientation of the rotatable collar with respect to the stationary mount.

24. The apparatus of claim 23, wherein each blade further comprises a pivot pin; the mount further comprises a plurality of apertures; and each aperture receives the pivot pin of a blade.

25. The apparatus of claim 24, wherein each blade further comprises a sliding pin; the rotatable collar further comprises a plurality of slots; and each slot receives the sliding pin of a blade.

26. The apparatus of claim 25, wherein the slots of the rotatable collar are oriented in a radial direction.

27. The apparatus of claim 26, wherein the sliding pin of a blade may translocate from a first position to a second position within a slot of the rotatable collar as the rotatable collar is rotated from a first rotational position to a second rotational position with respect to the stationary mount.

28. The apparatus of claim 19, wherein each blade has a thickness dimension in a direction parallel to the central longitudinal axis of the aperture, wherein the thickness dimension of each blade is 2 mm or less.

29. The apparatus of claim 19 comprising 6 to 10 blades.

30. The apparatus of claim 19, wherein the aperture comprises a first aperture, the apparatus further comprising a second plurality of blades arranged to form a second aperture whose size may be varied, the second aperture adjustable independently from the first aperture.

31. The apparatus of claim 30, further comprising a third plurality of blades arranged to form a third aperture whose size may be varied, the third aperture being independently adjustable.

32. The apparatus of claim 30, further comprising a first drive device for controlling the size of the first aperture and a second drive device for controlling the size of the second aperture.

33. The apparatus of claim 22, wherein the mount, the rotatable collar and the plurality of blades comprise a first crimping section; the apparatus further comprising a second crimping section, the second crimping section comprising a second rotatable collar and a second plurality of blades arranged to form a second aperture, each crimping section being independently adjustable.

34. The apparatus of claim 33, wherein the first aperture and the second aperture are arranged about a similar central longitudinal axis.

35. An apparatus for applying an inward force to a medical device, said apparatus comprising a mount, a rotatable collar and a plurality of coupled movable blades arranged to form an aperture whose size may be varied by rotating the collar with respect to the mount; each blade being pivotally attached to the mount and slidably engaged with the collar; each blade having a thickness dimension of 2 mm or less in a direction parallel to a central longitudinal axis of the aperture; wherein at least two blades overlap one another in a direction parallel to the central longitudinal axis of the aperture.